# NEW SOURCE CONSTRUCTION PERMIT
# and MINOR SOURCE OPERATING PERMIT
# OFFICE OF AIR MANAGEMENT

## Heartland Automotive, Inc.
## 300 South Warren Drive
## Greencastle, Indiana 46135

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the emission units described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

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|---|---|
| Operation Permit No.: MSOP 133-10520-00027 | |
| Issued by:<br>Paul Dubenetzky, Branch Chief<br>Office of Air Management | Issuance Date: |

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## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-5.1-3(c)] [326 IAC 2-6.1-4(a)]

The Permittee owns and operates an automotive plastic parts coating source.

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|---|---|
| Authorized Individual: | S. Houma |
| Source Address: | 300 South Warren Drive, Greencastle, Indiana 46135 |
| Mailing Address: | P.O. Box 648, Greencastle, Indiana 46135-0648 |
| Phone Number: | 765-653-4263 |
| SIC Code: | 3089, 3999 |
| County Location: | Putnam |
| County Status: | Attainment for all criteria pollutants |
| Source Status: | Minor Source Operating Permit<br>Minor Source, under PSD Rules<br>Major Source, Section 112 of the Clean Air Act |

### A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

(a) One (1) natural gas-fired boiler, known as B-1, rated at 1.36 million British thermal units per hour, installed in May 1989, exhausted through Stack B.

(b) One (1) door panel assembly line, consisting of three (3) processes, vacuum forming, exhausted through Stack C-1, edge folding, exhausted through Stack C-2, installed in May 1989, and hot stake, exhausted through C-3, installed in February 1999, capacity: 112.5 door panels per hour.

(c) One (1) chemical storage and mixing room, installed in January 1989, exhausted through general ventilation.

(d) One (1) touch-up paint booth, exhausted through Stack D, installed in 1997, capacity: 13.89 plastic automotive parts per hour.

(e) Two (2) natural gas-fired make-up air units, known as MAU-1 and MAU-2,rated at 2.4 million British thermal units per hour, each, installed in October 1997.

(f) One (1) slush mold/powder slush operation, consisting of two (2) natural gas fired, rated at 1.19 million British thermal units per hour each, known as SM/PS installed in November 1998, exhausted through Stack E, capacity: 31.25 parts/skins per hour.

(g) One (1) apron, rear gate and lid thermoforming press, consisting of one (1) electric oven, exhausted through Stack F, installed in March 1999, capacity: 25.0 aprons per hour, 12.5 rear gates per hour and 8.1 lids per hour.

(h) Two (2) surface coating booths, known as SB-1 and SB-2, equipped with air atomizing spray applicators and dry filters for PM overspray, exhausted through Stacks SB-1 and SB-2, associated with two (2) flash-off areas and one (1) paint kitchen, exhausted through Stacks FO-1 and FO-2 and PK-1, capacity: 62.5 plastic automotive parts per hour.

(i) One (1) natural gas drying oven, known as D-1, rated a 1 million British thermal unit per hour, exhausted through Stack D-1.

(j) Nine (9) injection molding machines, consisting of three (3) 2,200 injection molding machines, installed in 1989, one (1) 850 injection molding machine, installed in March 1995, one (1) 830 injection molding machine installed in 1989, two (2) 650 injection molding machines, installed September 1997 and November 1998, one (1) 515 injection molding machine, installed in 1989 and one (1) 450 injection molding machine, installed November 1998, capacity: 1,500 automotive parts per day total.

## SECTION B GENERAL CONSTRUCTION CONDITIONS

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1.1 AND 40 CFR 52.780, WITH CONDITIONS LISTED BELOW.

B.1 Permit No Defense [IC 13]

This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Revocation of Permits [326 IAC 2-1.1-9(5)]

Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

B.5 Modification to Permit [326 IAC 2]

Notwithstanding Condition B.7, all requirements and conditions of this construction permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of construction permits pursuant to 326 IAC 2 (Permit Review Rules).

B.6 Minor Source Operating Permit [326 IAC 2-6.1]

This document shall also become a minor source operating permit pursuant to 326 IAC 2-6.1 when, prior to start of operation, the following requirements are met:

(a) The attached affidavit of construction shall be submitted to the Office of Air Management (OAM), Permit Administration & Development Section, verifying that the emissions units were constructed as proposed in the application. The emissions units covered in the New Source Construction Permit may begin operating on the date the affidavit of construction is postmarked or hand delivered to IDEM.

(b) If construction is completed in phases; i.e., the entire construction is not done continuously, a separate affidavit must be submitted for each phase of construction. Any permit conditions associated with operation start up dates such as stack testing for New Source Performance Standards (NSPS) shall be applicable to each individual phase.

(c) The Permittee shall receive an Operation Permit Validation Letter from the Chief of the Permit Administration & Development Section and attach it to this document.

(d) The operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-7-19 (Fees).

(e) Pursuant to 326 IAC 2-7-4 and 326 IAC 2-5.1-4, the Permittee shall apply for a Title V operating permit within twelve (12) months after the source becomes subject to Title V. This 12-month period starts at the postmarked submission date of the Affidavit of Construction. If the construction is completed in phases, the 12-month period starts at the postmarked submission date of the Affidavit of Construction that triggers the Title V applicability. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

## SECTION C SOURCE OPERATION CONDITIONS

Entire Source

C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]

(a) The total source potential to emit of all criteria pollutants is less than 250 tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.

(b) Any change or modification which may increase potential to emit to 250 tons per year from this source, shall cause this source to be considered a major source under PSD, 326 IAC 2-2 and 40 CFR 52.21, and shall require approval from IDEM, OAM prior to making the change.

C.2 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit, including the following information on each emissions unit:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) PMP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM.

C.3 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of [326 IAC 2-6.1-6] whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1.

(c) The Permittee shall notify the OAM within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

C.4 Source Modification [326 IAC 2-7-10.5]

(a) The Permittee must comply with the requirements of [326 IAC 2-7-10.5] whenever the Permittee seeks to construct new emissions units, modify existing emissions units, or otherwise modify the source.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule.

C.5 Inspection and Entry [326 IAC 2-5.1-3(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, the Permittee shall allow IDEM, OAM, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;

(c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

(1) The Permittee may assert a claim that, in the opinion of the Permittee, information removed or about to be removed from the source by IDEM, OAM, or an authorized representative, contains information that is confidential under IC 5-14-3-4(a). The claim shall be made in writing before or at the time the information is removed from the source. In the event that a claim of confidentiality is so asserted, neither IDEM, OAM, nor an authorized representative, may disclose the information unless and until IDEM, OAM, makes a determination under 326 IAC 17-1-7 through 326 IAC 17-1-9 that the information is not entitled to confidential treatment and that determination becomes final. [IC 5-14-3-4; IC 13-14-11-3; 326 IAC 17-1-7 through 326 IAC 17-1-9]

(2) The Permittee, and IDEM, OAM, acknowledge that the federal law applies to claims of confidentiality made by the Permittee with regard to information removed or about to be removed from the source by U.S. EPA. [40 CFR Part 2, Subpart B]

C.6 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)]:

(a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAM, Permits Branch, within thirty (30) days of the change.

(b) The written notification shall be sufficient to transfer the permit to the new owner by an notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).

(c) IDEM, OAM, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1.

C.7 Permit Revocation [326 IAC 2-1-9]

Pursuant to 326 IAC 2-1-9(a)(Revocation of Permits), this permit to construct and operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.8 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

C.9 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

**Testing Requirements**

C.10 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing methods approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAM within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Pe4rmittee does not require certification by the “authorized individual” as defined by 326 IAC 2-1.1-1.

**Compliance Monitoring Requirements**

C.11 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, no more than ninety (90) days after receipt of this permit.

If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend the compliance schedule an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date. The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

C.12 Maintenance of Monitoring Equipment [IC 13-14-1-13]

(a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.

(b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

C.13 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed to meet the applicable requirements of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.14 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 1-6]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:

(1) This condition;

(2) The Compliance Determination Requirements in Section D of this permit;

(3) The Compliance Monitoring Requirements in Section D of this permit;

(4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and

(5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:

(A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and

(B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.

(b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.

(c) After investigating the reason for the excursion, the Permittee is excused from taking further response steps for any of the following reasons:

(1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;

(3) An automatic measurement was taken when the process was not operating; or

(4) The process has already returned to operating within "normal" parameters and no response steps are required.

(d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

C.15 Actions Related to Noncompliance Demonstrated by a Stack Test

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected emissions unit while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.

(b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected emissions unit.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

**Record Keeping and Reporting Requirements**

C.16 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAM, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.17 Annual Emission Statement [326 IAC 2-6]

(a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by July 1 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:

(1) Indicate actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);

(2) Indicate actual emissions of other regulated pollutants from the source, for purposes of Part 70 fee assessment.

(b) The annual emission statement covers the twelve (12) consecutive month time period starting January 1 and ending December 31. The annual emission statement must be submitted to:

Indiana Department of Environmental Management
Technical Support and Modeling Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

The submittal by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1.

C.18 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) With the exception of performance tests conducted in accordance with Section C- Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.

(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.

(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.

(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.

(e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

C.19 General Record Keeping Requirements [326 IAC 2-6.1-2]

(a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Records of required monitoring information shall include, where applicable:

(1) The date, place, and time of sampling or measurements;

(2) The dates analyses were performed;

(3) The company or entity performing the analyses;

(4) The analytic techniques or methods used;

(5) The results of such analyses; and

(6) The operating conditions existing at the time of sampling or measurement.

(c) Support information shall include, where applicable:

(1) Copies of all reports required by this permit;

(2) All original strip chart recordings for continuous monitoring instrumentation;

(3) All calibration and maintenance records;

(4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C - Compliance Monitoring Plan - Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.

(d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.20 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).

(b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Management
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.

(d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports. The Emergency/Deviation Occurrence Report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.

(g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

**SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS**

Emissions Unit Description:

(a) One (1) natural gas-fired boiler, known as B-1, rated at 1.36 million British thermal units per hour, installed in May 1989, exhausted through Stack B.

(b) One (1) door panel assembly line, consisting of three (3) processes, vacuum forming, exhausted through Stack C-1, edge folding, exhausted through Stack C-2, installed in May 1989, and hot stake, exhausted through C-3, installed in February 1999, capacity: 112.5 door panels per hour.

(c) One (1) chemical storage and mixing room, installed in January 1989, exhausted through general ventilation.

(d) One (1) touch-up paint booth, exhausted through Stack D, installed in 1997, capacity: 13.89 plastic automotive parts per hour.

(e) Two (2) natural gas-fired make-up air units, known as MAU-1 and MAU-2,rated at 2.4 million British thermal units per hour, each, installed in October 1997.

(f) One (1) slush mold/powder slush operation, consisting of two (2) natural gas fired, rated at 1.19 million British thermal units per hour each, known as SM/PS installed in November 1998, exhausted through Stack E, capacity: 31.25 parts/skins per hour.

(g) One (1) apron, rear gate and lid thermoforming press, consisting of one (1) electric oven, exhausted through Stack F, installed in March 1999, capacity: 25.0 aprons per hour, 12.5 rear gates per hour and 8.1 lids per hour.

(h) Two (2) surface coating booths, known as SB-1 and SB-2, equipped with air atomizing spray applicators and dry filters for PM overspray, exhausted through Stacks SB-1 and SB-2, associated with two (2) flash-off areas and one (1) paint kitchen, exhausted through Stacks FO-1 and FO-2 and PK-1, capacity: 62.5 plastic automotive parts per hour.

(i) One (1) natural gas drying oven, known as D-1, rated a 1 million British thermal unit per hour, exhausted through Stack D-1.

(j) Nine (9) injection molding machines, consisting of three (3) 2,200 injection molding machines, installed in 1989, one (1) 850 injection molding machine, installed in March 1995, one (1) 830 injection molding machine installed in 1989, two (2) 650 injection molding machines, installed September 1997 and November 1998, one (1) 515 injection molding machine, installed in 1989 and one (1) 450 injection molding machine, installed November 1998, capacity: 1,500 automotive parts per day total.

**Emission Limitations and Standards**

D.1.1 Volatile Organic Compounds [326 IAC 8-1-6]

The amount of VOC delivered to the applicators of two (2) surface coating booths (SB-1 and SB-2) shall be limited to twenty-four (24) tons per twelve (12) month consecutive period. Therefore, the best available control technology (BACT) requirements in 326 IAC 8-1-6 (New Facilities: General Reduction Requirements) do not apply.

D.1.2 HAPs [326 IAC 2-1-3.4]

The amount of any single HAP and combination of HAPs delivered to the applicators of the two (2) surface coating booths (SB-1 and SB-2) shall be limited to less than ten (10) and less than twenty-five (25) tons per twelve (12) month consecutive period respectively. Therefore, the requirements of 326 IAC 2-1-3.4 (New source toxics control) do not apply.

D.1.3 Particulate Matter (PM) [326 IAC 6-3-2(c)]

The PM from the two (2) surface coating booths (SB-1 and SB-2) and slush mold/powder slush operation shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.4 Preventive Maintenance Plan [326 IAC 1-6-3]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for the two (2) surface coating booths (SB-1 and SB-2) and any control devices.

**Compliance Determination Requirements**

D.1.5 Testing Requirements [326 IAC 2-1.1-11]

The Permittee is not required to test these emission units by this permit. However, IDEM may require compliance testing when necessary to determine if these emission units are in compliance. If testing is required by IDEM, compliance with the particulate matter limit specified in Condition D.1.3 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

D.1.6 Volatile Organic Compounds (VOC)

Compliance with the VOC usage limitation contained in Conditions D.1.1 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAM, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

D.1.7 VOC Emissions

Compliance with Condition D.1.1 shall be demonstrated within 30 days of the end of each month based on the total volatile organic compound usage for the most recent twelve (12) month period.

D.1.8 HAPs Emissions

Compliance with Condition D.1.2 shall be demonstrated within 30 days of the end of each month based on the HAPs usage for the most recent twelve (12) month period.

**Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

D.1.9 Particulate Matter (PM)

The dry filters for PM overspray control shall be in operation at all times when the two (2) surface coating booths (SB-1 and SB-2) are in operation.

D.1.10 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stacks (SB-1 and SB-2) while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

(c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

**Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

D.1.11 Record Keeping Requirements

(a) To document compliance with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC and HAPs usage limits and/or the HAPs and VOC emission limits established in Conditions D.1.1 and D.1.2.

(1) The amount of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;

(2) A log of the dates of use;

(3) The cleanup solvent usage for each month;

(4) The total VOC and HAPs usage for each month; and

(5) The weight of VOCs and HAPs emitted for each compliance period.

(b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

(b) To document compliance with Conditions D.1.9 and D.1.10, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.12 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.1.1 and D.1.2 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

## Indiana Department of Environmental Management
## Office of Air Management
### Compliance Data Section

**Quarterly Report**

Company Name: Heartland Automotive, Inc.
Location: 300 South Warren Drive, Greencastle, Indiana 46135
Permit No.: MSOP 133-10520-00027
Source: Two (2) Surface Coating Booths (SB-1 and SB-2)
Pollutant: VOC
Limit: Twenty-four (24) tons per twelve (12) consecutive month period

**Year:** _____

| Month | Column 1 | Column 2 | Column 1 + Column 2 |
|---|---|---|---|
| | This Month | Previous 11 Months | 12 Month Total |
| | | | |
| | | | |
| | | | |

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

## Indiana Department of Environmental Management
## Office of Air Management
### Compliance Data Section

**Quarterly Report**

Company Name: Heartland Automotive, Inc.
Location: 300 South Warren Drive, Greencastle, Indiana 46135
Permit No.: MSOP 133-10520-00027
Source: Two (2) Surface Coating Booths (SB-1 and SB-2)
Pollutant: HAPs
Limit: Single HAP Nine and nine-tenths (9.9) tons per twelve (12) consecutive month period
Combination of all HAPs twenty-four (24) tons per twelve (12) consecutive month period

Year: _____

_____ HAP(s)

| Month | Column 1 | Column 2 | Column 1 + Column 2 |
|---|---|---|---|
| | This Month | Previous 11 Months | 12 Month Total |
| | | | |
| | | | |
| | | | |

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

## MALFUNCTION REPORT

### INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
### OFFICE OF AIR MANAGEMENT
**FAX NUMBER - 317 233-5967**

**This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.**

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES ?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100 TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY: _____ PHONE NO. : _____
LOCATION: (CITY AND COUNTY) _____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP: _____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON: _____

DATE/TIME MALFUNCTION STARTED: _____/_____/ 19_____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 19____ _____ AM / PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER: _____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

MEASURES TAKEN TO MINIMIZE EMISSIONS: _____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES: _____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS: _____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT: _____
INTERIM CONTROL MEASURES: (IF APPLICABLE) _____

MALFUNCTION REPORTED BY: _____ TITLE: _____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY: _____ DATE: _____ TIME: _____

*SEE PAGE 2

**Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.**

**326 IAC 1-6-1 Applicability of rule**

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

**326 IAC 1-2-39 "Malfunction" definition**

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

*** Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

_____

_____

# Indiana Department of Environmental Management
# Office of Air Management

# Technical Support Document (TSD) for New Source Construction and Minor Source Operating Permit

**Source Background and Description**

| | |
|---|---|
| **Source Name:** | **Heartland Automotive, Inc.** |
| **Source Location:** | **300 South Warren Drive, Greencastle, Indiana 46135** |
| **County:** | **Putnam** |
| **SIC Codes:** | **3089, 3999** |
| **Operation Permit No.:** | **CP 133-8350-00027** |
| **Operation Permit Issuance Date:** | **April 3, 1997** |
| **Source Modification No.:** | **MSOP 133-10520-00027** |
| **Permit Reviewer:** | **Mark L. Kramer** |

The Office of Air Management (OAM) has reviewed a modification application from Heartland Automotive, Inc. relating to the operation of an automotive plastic parts coating source.

**Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

(a) One (1) natural gas-fired boiler, known as B-1, rated at 1.36 million British thermal units per hour, installed in May 1989, exhausted through Stack B.

(b) One (1) door panel assembly line, consisting of two (2) processes, vacuum forming, exhausted through Stack C-1, and edge folding, exhausted through Stack C-2, installed in May 1989, capacity: 112.5 door panels per hour.

(c) One (1) chemical storage and mixing room, installed in January 1989, exhausted through general ventilation.

(d) One (1) touch-up paint booth, exhausted through Stack D, installed in 1997, capacity: 13.89 plastic automotive parts per hour.

**Unpermitted Emission Units and Pollution Control Equipment**

The source also consists of the following unpermitted facilities/units:

(e) Two (2) natural gas-fired make-up air units, known as MAU-1 and MAU-2,rated at 2.4 million British thermal units per hour, each, installed in October 1997.

(f) One (1) slush mold/powder slush operation, consisting of two (2) natural gas fired, rated at 1.19 million British thermal units per hour each, known as SM/PS installed in November 1998, exhausted through Stack E, capacity: 31.25 parts/skins per hour.

(g) One (1) apron, rear gate and lid thermoforming press, consisting of one (1) electric oven, exhausted through Stack F, installed in March 1999, capacity: 25.0 aprons per hour, 12.5 rear gates per hour and 8.1 lids per hour.

**New Emission Units and Pollution Control Equipment Receiving Prior Approval**

The application includes information relating to the prior approval for the construction and operation of the following equipment pursuant to 326 IAC 2-1:

(h) Two (2) surface coating booths, known as SB-1 and SB-2, equipped with air atomizing spray applicators and dry filters for PM overspray, exhausted through Stacks SB-1 and SB-2, associated with two (2) flash-off areas and one (1) paint kitchen, exhausted through Stacks FO-1 and FO-2 and PK-1, capacity: 62.5 plastic automotive parts per hour.

(i) One (1) natural gas drying oven, known as D-1, rated a 1 million British thermal unit per hour, exhausted through Stack D-1.

**History**

On January 4, 1999, Heartland Automotive, Inc. submitted an application to the OAM requesting to add additional surface coating booths and a drying oven to their existing plant. Heartland Automotive, Inc. was issued CP 133-8350-00027 on April 3, 1997, CP 133-2753-00027 on November 24, 1993 and Registered Status Letter dated February 14, 1989.

The one (1) spray booth covered in CP 133-2753-00027, issued November 24, 1993, was to allow the conversion of an existing spray booth utilizing water-based adhesive to a spray booth utilizing solvent-based adhesive according the first paragraph of the Technical Support Document. Although the source found and utilized a water-based adhesive as a substitute for the proposed solvent-based adhesive, the issued permit was never revoked. On February 25, 1999, the source agreed to withdraw this permit. Therefore, the previously calculated VOC potential of 130 tons per year has not been counted in the PSD source definition emissions.

A field inspection report dated May 13, 1996 confirmed that a water-based adhesive was found that met their requirements and no booth was “built”. Therefore, the company did not send in the affidavit of construction for CP 133-2753-00027. The one (1) adhesive spray booth was never installed.

The one (1) vacuum foaming machine, installed in1989 under the Registration issued February 14, 1989 was eliminated from the source in December 1997. In addition, the two (2) tote bins have been eliminated. Also the one (1) polyurethane foaming machine and the one (1) injection molding machine were eliminated in December 1997.

The slush mold/powder slush operation installed in November 1998 was tested and has not been utilized in a regular operation mode. The thermoforming press installed in March 1999 was also tested and has not operated in a regular operation mode.

**Existing Approvals**

The source has not applied for a Part 70 Operating Permit. The source has been operating under previous approvals including, but not limited to, the following:

(a) Registration Letter (no number) issued February 14, 1989,

(b) CP 133-2753 issued November 24, 1993, withdrawn February 25, 1999, and

(c) CP 133-8350 issued April 3, 1997.

**Enforcement Issue**

(a) IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment.*

(b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

**Stack Summary**

| Stack ID | Operation | Height (feet) | Diameter (feet) | Flow Rate (acfm) | Temperature (°F) |
|---|---|---|---|---|---|
| SB-1 | Surface coating | 33 | 2.83 | 12,500 | 68 |
| SB-2 | Surface coating | 33 | 2.83 | 12,500 | 68 |
| D-1 | Drying | 33 | 1.50 | 1,200 | 150 |
| C-1 | Door Panel Assembly | 35 | 1.50 | 4,000 | 68 |
| C-2 | Door Panel Assembly | 35 | 2.00 | 7,500 | 68 |
| FO-1 | Flash-off Area | 33 | 0.5 | - | 68 |
| FO-2 | Flash-off Area | 33 | 0.5 | - | 68 |
| PK-1 | Paint Kitchen | 33 | 0.5 | - | 68 |
| E | SlushMold/ Powder Slush | 35 | 1.0 | 750 | 140 |
| F | Thermoforming | 35 | 1.0 | 2,000 | 86 |

**Recommendation**

The staff recommends to the Commissioner that the Significant Source Modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on January 4, 1999. Additional information was received on February 3, 19, 25 and April 16, 20 and 21, 1999.

**Emission Calculations**

See pages 1 through 5 of Appendix A (Emissions Calculation Spreadsheets) for detailed calculations.

**Potential To Emit**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

| **Pollutant** | **Potential To Emit** (tons/year) |
|---|---|
| PM | 7.37 |
| $PM_{10}$ | 7.37 |
| $SO_2$ | 0.022 |
| VOC | 46.6 |
| CO | 3.01 |
| $NO_X$ | 3.58 |

| **HAPS** | **Potential To Emit** (tons/year) |
|---|---|
| Xylene | 20.4 |
| Toluene | 12.3 |
| MIBK | 1.17 |
| MEK | 2.61 |
| Ethylene Glycol | 0.473 |
| Naphtha | 0.473 |
| Benzene | 0.000 |
| Dichlorobenzene | 0.000 |
| Formaldehyde | 0.000 |
| Hexane | 0.011 |
| Lead | 0.000 |
| Cadmium | 0.000 |
| Chromimum | 0.000 |
| Manganese | 0.000 |
| Nickel | 0.000 |
| Vinyl Chloride | 0.0005 |
| TOTAL | 37.4 |

(a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of VOC from this modification are equal to or greater than 25 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-1.

(b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination HAPS is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(c) Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

**Actual Emissions**

No previous emission data has been received from the source.

**Source Status**

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

| **Pollutant** | **Emissions** (tons/yr) |
|---|---|
| PM | 0.10 |
| $PM_{10}$ | 0.10 |
| $SO_2$ | 0.00 |
| VOC | 23.5 |
| CO | 0.00 |
| $NO_X$ | 0.60 |

(a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.

(b) These emissions were based on CP 133-8350-00027, issued April 3, 1997, CP 133-2753-00027, issued November 24, 1993 and Registered Status Letter dated February 14, 1989.

The one (1) spray booth proposed for construction in CP 133-2753-00027, issued November 24, 1993, withdrawn February 25, 1999, was never constructed as a water-based adhesive was found and utilized as a substitute for the proposed solvent-based adhesive. Therefore, the VOC potential of 130 tons per year has not been counted in the PSD source definition emissions.

**Proposed Modification**

PTE from the proposed modification including the unpermitted and new equipment (based on 8,760 hours of operation per year at rated capacity including enforceable emission control and production limit, where applicable):

| Pollutant | PM (tons/yr) | $PM_{10}$ (tons/yr) | $SO_2$ (tons/yr) | VOC (tons/yr) | CO (tons/yr) | $NO_X$ (tons/yr) |
|---|---|---|---|---|---|---|
| Proposed Modification | 1.05 | 1.05 | 0.022 | 24.4 | 3.01 | 3.58 |
| PSD Threshold Level | 250 | 250 | 250 | 250 | 250 | 250 |

This modification to an existing minor stationary source is not major because the emission increase is less than the PSD significant levels. Therefore, pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

**Part 70 Permit Determination**

326 IAC 2-7 (Part 70 Permit Program)

This existing source is now subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) a single hazardous air pollutant (HAP) is greater than or equal to ten (10) tons per year, and

(b) any combination of HAPS is greater than or equal to twenty-five (25) tons per year.

This existing source shall apply for a Part 70 (Title V) operating permit or a FESOP within twelve (12) months after the operation of these two (2) surface coating booths since these booths trigger the Title V thresholds for single HAP greater than 10 tons per year and 25 tons per year for the combination of all HAPS.

This status is based on all the air approvals issued to the source. This status has been verified by the OAM inspector assigned to the source. This source has not previously submitted either a FESOP or Title V application. This proposed modification will make this source subject to the provisions of the Part 70 Operating Permit Program.

**County Attainment Status**

The source is located in Putnam County.

| Pollutant | Status |
|---|---|
| $PM_{10}$ | attainment |
| $SO_2$ | attainment |
| $NO_2$ | attainment |
| Ozone | attainment |
| CO | attainment |
| Lead | attainment |

Volatile organic compounds (VOC) and oxides of nitrogen ($NO_X$) are precursors for the formation of ozone. Therefore, VOC and $NO_X$ emissions are considered when evaluating the rule applicability relating to the ozone standards. Putnam County has been designated as attainment or unclassifiable for ozone.

**Federal Rule Applicability**

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) applicable to this source.

**State Rule Applicability - Entire Source**

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), because the source potentially emits less than one hundred (100) tons per year of VOC in Putnam County.

326 IAC 5-1 (Opacity)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions)

Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), visible emissions shall not cross the property line of the source at or near ground level.

**State Rule Applicability - Individual Facilities**

326 IAC 2-1-3.4 (New source toxics control)

The source has agreed to limit a single HAP to less than ten (10) tons per year and the combination of all HAPS to less than twenty-five (25) tons per year from the two (2) surface coating booths (SB-1 and SB-2). Therefore, the requirements of this rule are not applicable.

326 IAC 6-3 (Process Operations)

The two (2) surface coating booths and the slush mold/powder slush operations shall comply with 326 IAC 6-3-2(c). The 326 IAC 6-3-2 equations are as follows: $E = 4.10\ P^{0.67}$, where P equals process weight in tons per hour for process weights up to and including sixty thousand (60,000) pounds per hour and E equals the allowable emission rate in pounds per hour. For process weights in excess of sixty thousand (60,000) pounds per hour, $E = 55.0\ ^{P0.11} - 40$.

The dry filters shall be in operation at all times the two (2) surface coating booths are in operation, in order to comply with this limit.

326 IAC 8-1-6 (New facilities; general reduction requirements)

This modification to an automotive plastics parts coating source has the potential to emit more than 25 tons per year of VOC, and therefore, 326 IAC 8-1-6 could be applicable. This source has agreed to limit VOC emissions from coating plastic automotive parts from the two (2) surface coating booths (SB-1 and SB-2) to twenty-four (24.0) tons per twelve (12) consecutive month period. Therefore, this source will not be required to install Best Available Control Technology (BACT).

**Air Toxic Emissions**

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) Construction Permit Application Form Y.

(a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.

(b) See attached spreadsheets on pages 3 and 5 of 5 of Appendix A for detailed air toxic calculations.

**Conclusion**

The operation of this automotive plastic parts coating source shall be subject to the conditions of the attached proposed **MSOP Permit No. MSOP 133-10520-00027.**

# Indiana Department of Environmental Management
# Office of Air Management

Addendum to the
Technical Support Document for New Construction and Operation

| | |
|---|---|
| **Source Name:** | **Heartland Automotive, Inc.** |
| **Source Location:** | **300 South Warren Drive, Greencastle, Indiana 46135** |
| **County:** | **Putnam** |
| **Construction Permit No.:** | **133-10520-00027** |
| **SIC Code:** | **3089, 3999** |
| **Permit Reviewer:** | **Mark L. Kramer** |

On April 24, 1999, the Office of Air Management (OAM) had a notice published in the Banner Graphic, Greencastle, Indiana, stating that Heartland Automotive, Inc. had applied for a permit to construct and operate a modification to an existing permitted automotive plastic parts coating source. This modification consists of an oven and two (2) surface coating booths with dry filters for particulate matter control. The notice also stated that OAM proposed to issue a permit for this installation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On May 13, 1999, Matthew D. Moore, PE, RQAW Consulting, submitted comments on behalf of Heartland Automotive, Inc. on the proposed construction permit. The comments and corresponding responses follow. The permit language is changed to read as follows (deleted language appears as ~~strikeouts~~, new language is **bolded)**:

**COMMENT 1:**

Door Panel Assembly Line - Due to the new model year, a third process will be added to the door panel assembly line. After the vacuum forming and edge folding processes, the panels will proceed through a hot stake process where an electric heating process will be used to stake/clamp the panels together. There are no emissions from this process; however, the generated heat will be vented through a new stack, designated at C-3. This stack will be 35 feet in height, have a diameter of 24 inches, an airflow rate of 7,500 cfm, and a temperature of slightly above ambient (assume 15 degrees Fahrenheit above ambient). The hot stake process was installed in February 1999 and has been tested. Production will not start until later this month.

**RESPONSE 1:**

The proposed third process of the door panel assembly line has been incorporated in item (b) of Conditions A.2 and D.1 as follows:

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

(b) One (1) door panel assembly line, consisting of ~~two (2)~~ **three (3)** processes, vacuum forming, exhausted through Stack C-1, ~~and~~ edge folding, exhausted through Stack C-2, installed in May 1989, **and hot stake, exhausted through C-3, installed in February 1999**, capacity: 112.5 door panels per hour.

As a result of the addition to the source, the following table from page 3 of 8 of the Technical Support Document has incorporated Stack C-3 as follows:

**Stack Summary**

| Stack ID | Operation | Height (feet) | Diameter (feet) | Flow Rate (acfm) | Temperature (°F) |
|---|---|---|---|---|---|
| SB-1 | Surface coating | 33 | 2.83 | 12,500 | 68 |
| SB-2 | Surface coating | 33 | 2.83 | 12,500 | 68 |
| D-1 | Drying | 33 | 1.50 | 1,200 | 150 |
| C-1 | Door Panel Assembly | 35 | 1.50 | 4,000 | 68 |
| C-2 | Door Panel Assembly | 35 | 2.00 | 7,500 | 68 |
| C-3 | Door Panel Assembly | 35 | 2.00 | 7,500 | 83 |
| FO-1 | Flash-off Area | 33 | 0.5 | - | 68 |
| FO-2 | Flash-off Area | 33 | 0.5 | - | 68 |
| PK-1 | Paint Kitchen | 33 | 0.5 | - | 68 |
| E | SlushMold/ Powder Slush | 35 | 1.0 | 750 | 140 |
| F | Thermoforming | 35 | 1.0 | 2,000 | 86 |

Since there are no additional emissions from this process, there are no applicable rules and no additional emission limits in the permit.

**COMMENT 2:**

Injection molding machine - Heartland Automotive indicated in an April 16, 1999 letter responding to the Notice of Deficiency No. 2 that the injection molding machine included in the original plant registration issued February 14, 1989 had become obsolete and had been eliminated. This statement needs to be clarified.

The original injection molding machine process included the addition of flattener as a plastic resurfacing agent. This system never operated correctly and was never fully utilized. Heartland Automotive was forced in 1997 to go to a separate resurfacing process. This flaw repair process is the touch-up spray booth included in Registration CP 133-8350-0027 that was issued April 3, 1997.

The stack that was to have vented the flattener from the injection molding process was eliminated in December 1997 per the April 16, 1999 letter due to obsolescence. The injection molding process is still in operation.

There are a total of nine (9) injection molding machines, with their size being determined by the clamp force in metric tons. All the machines are operated on a three shift basis (24 hours per day, 7 days per week) and each has a maximum production rate of 1,500 parts per day. Polypropylene pellets are injected into the molds, which is a closed process.

The nine (9) injection mold machines may be identified as follows:

2,200 injection molding machine - original plant
2,200 injection molding machine - original plant
2,200 injection molding machine - original plant
850 injection molding machine - installed March 1995
830 injection molding machine - original plant
650 injection molding machine - installed September 1997
650 injection molding machine - installed November 1998
515 injection molding machine - original plant
450 injection molding machine - installed November 1998

Potential VOC emissions from these machines are 1.04 tons per year, of 5.70 pounds per day. A spreadsheet is attached for reference that shows the maximum production of all injected parts and the calculation of VOC emissions from polypropylene used in the injection molding process. The emission rate of VOCs from the manufacturing of polypropylene listed in Section 6.6.4 of AP-42 (0.7 pounds VOC per ton polypropylene manufactured) was used in these calculations. Since Heartland is only processing the polypropylene pellets and not manufacturing them, it is assumed that this is a very conservative number and that actual potential to emit is even lower than this value.

Daily production values, shown on the attached spreadsheet, for items 1 through 33 will gradually increase to 450 vehicles per day by September 1999. Daily production values, shown on the attached spreadsheet, for items 34 through 41 are based on current production levels.

Since the calculated potential emission rate is well below the registration limit of 15 pounds per day or 3 pounds per hour listed in 326 IAC 2-1-1, these machines did not have to be registered or permitted at the time of construction.

Emissions from the flaw repair process were registered prior to the flaw repair booth being constructed and have been reported in previous correspondence.

**RESPONSE 2:**

The nine (9) molding machines have been incorporated into as item (j) in Conditions A.2 and D.1 as follows:

A.2 Emissions units and Pollution Control Equipment Summary

This stationary source is approved to construct and operate the following emissions units and pollution control devices:

**(j) Nine (9) injection molding machines, consisting of three (3) 2,200 injection molding machines, installed in 1989, one (1) 850 injection molding machine, installed in March 1995, one (1) 830 injection molding machine installed in 1989, two (2) 650 injection molding machines, installed September 1997 and November 1998, one (1) 515 injection molding machine, installed in 1989 and one (1) 450 injection molding machine, installed November 1998, capacity: 1,500 automotive parts per day total.**

The potential VOC emissions for the nine (9) molding machines have been calculated on the spreadsheet attached as page 1 of 1 of the TSD Addendum Appendix A. The total potential VOC emissions for the nine (9) molding machines is 1.62 tons per year. These machines are not subject to any Article 8 rules.

Upon further review, the OAM has decided to make the following clarification:

In the Technical Support Document, the equipment listed under the heading, “Unpermitted Emission Units” were exempt and did not need a Construction Permit or Registration pursuant to 326 IAC 2-1.

**Company Name:** Heartland Automotive, Inc.
**Address City IN Zip:** 300 South Warren Drive, Greencastle, Indiana 46135
**MSOP:** 133-10520
**Plt ID:** 133-00027
**Reviewer:** Mark L. Kramer
**Date:** January 4, 1999

**Injection Molding Machines** **Polypropylene (PP) Usage and Potential VOC Emissions**

| No. | Mold Name | Parts/Day | Parts/Hour | Grams/Part | % PP | PP/Hour (grams/hr) | PP/Hour (lbs/hr) | PP/Hour (tons/hr) | Emission Factor (lbs/ton) | Potential VOC (lbs/hr) | Potential VOC (tons/yr) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | Frame Inst | 450 | 18.75 | 3278 | 0% | 0 | 0.00 | 0.0000 | 0.7 | 0.000 | 0.000 |
| 2 | Visor | 450 | 18.75 | 379 | 0% | 0 | 0.00 | 0.0000 | 0.7 | 0.000 | 0.000 |
| 3 | Pocket Inn | 450 | 18.75 | 485 | 76% | 6911.25 | 15.24 | 0.0076 | 0.7 | 0.005 | 0.023 |
| 4 | Panel Back Pocket | 450 | 18.75 | 360 | 76% | 5130 | 11.31 | 0.0057 | 0.7 | 0.004 | 0.017 |
| 5 | Cover Lower D | 450 | 18.75 | 418 | 76% | 5956.5 | 13.13 | 0.0066 | 0.7 | 0.005 | 0.020 |
| 6 | Panel Inst Side P | 450 | 18.75 | 385 | 76% | 5486.25 | 12.10 | 0.0060 | 0.7 | 0.004 | 0.019 |
| 7 | Lid Pocket | 450 | 18.75 | 370 | 76% | 5272.5 | 11.62 | 0.0058 | 0.7 | 0.004 | 0.018 |
| 8 | Nozzle Front DEF A/B | 450 | 18.75 | 437 | 85% | 6964.688 | 15.35 | 0.0077 | 0.7 | 0.005 | 0.024 |
| 9 | Grille Front DEF R/L | 450 | 18.75 | 0 | 0% | 0 | 0.00 | 0.0000 | 0.7 | 0.000 | 0.000 |
| 10 | Panel Ctr Side D/P | 450 | 18.75 | 517 | 76% | 7367.25 | 16.24 | 0.0081 | 0.7 | 0.006 | 0.025 |
| 11 | Console Box R | 450 | 18.75 | 740 | 85% | 11793.75 | 26.00 | 0.0130 | 0.7 | 0.009 | 0.040 |
| 12 | Cover R Console LHD | 450 | 18.75 | 363 | 85% | 5785.313 | 12.75 | 0.0064 | 0.7 | 0.004 | 0.020 |
| 13 | A Pillar Upper R/L | 450 | 18.75 | 511 | 80% | 7665 | 16.90 | 0.0084 | 0.7 | 0.006 | 0.026 |
| 14 | B Pillar Upper R/L | 450 | 18.75 | 425 | 80% | 6375 | 14.05 | 0.0070 | 0.7 | 0.005 | 0.022 |
| 15 | B Pillar Lower R/L | 450 | 18.75 | 914 | 80% | 13710 | 30.23 | 0.0151 | 0.7 | 0.011 | 0.046 |
| 16 | C Pillar Upper R/L | 135 | 18.75 | 1508 | 80% | 22620 | 49.87 | 0.0249 | 0.7 | 0.017 | 0.076 |
| 17 | C Pillar Lower R/L | 135 | 18.75 | 473 | 85% | 7538.438 | 16.62 | 0.0083 | 0.7 | 0.006 | 0.025 |
| 18 | D Pillar Upper R/L | 315 | 18.75 | 1698 | 80% | 25470 | 56.15 | 0.0281 | 0.7 | 0.020 | 0.086 |
| 19 | R/G Upper | 315 | 18.75 | 494 | 85% | 7873.125 | 17.36 | 0.0087 | 0.7 | 0.006 | 0.027 |
| 20 | R/G Side R/L | 315 | 18.75 | 226 | 85% | 3601.875 | 7.94 | 0.0040 | 0.7 | 0.003 | 0.012 |
| 21 | R/G Lower Upper | 315 | 18.75 | 687 | 85% | 10949.06 | 24.14 | 0.0121 | 0.7 | 0.008 | 0.037 |
| 22 | R Rail (Canada) | 315 | 18.75 | 230 | 85% | 3665.625 | 8.08 | 0.0040 | 0.7 | 0.003 | 0.012 |
| 23 | Mud Guard Gen R/L | 135 | 18.75 | 2015 | 0% | 0 | 0.00 | 0.0000 | 0.7 | 0.000 | 0.000 |
| 24 | Mud Guard Outback R/L | 315 | 18.75 | 2015 | 0% | 0 | 0.00 | 0.0000 | 0.7 | 0.000 | 0.000 |
| 25 | Apron Upper/R/L | 315 | 18.75 | 850 | 85% | 13546.88 | 29.87 | 0.0149 | 0.7 | 0.010 | 0.046 |
| 26 | Apron Front R/L | 315 | 18.75 | 542 | 85% | 8638.125 | 19.04 | 0.0095 | 0.7 | 0.007 | 0.029 |
| 27 | Pocket Apron R/L | 315 | 18.75 | 615 | 100% | 11531.25 | 25.42 | 0.0127 | 0.7 | 0.009 | 0.039 |
| 28 | Door Upper Front R/L | 450 | 18.75 | 500 | 85% | 7968.75 | 17.57 | 0.0088 | 0.7 | 0.006 | 0.027 |
| 29 | Door Upper Rear R/L | 450 | 18.75 | 536 | 85% | 8542.5 | 18.83 | 0.0094 | 0.7 | 0.007 | 0.029 |
| 30 | Door Lower Front R/L | 450 | 18.75 | 2419 | 85% | 38552.81 | 84.99 | 0.0425 | 0.7 | 0.030 | 0.130 |
| 31 | Door Lower Rear R/L | 450 | 18.75 | 2031 | 85% | 32369.06 | 71.36 | 0.0357 | 0.7 | 0.025 | 0.109 |
| 32 | Panel Pocket R/L | 315 | 18.75 | 353 | 85% | 5625.938 | 12.40 | 0.0062 | 0.7 | 0.004 | 0.019 |
| 33 | Garnish Side Sill R/L | 450 | 18.75 | 3774 | 100% | 70762.5 | 156.01 | 0.0780 | 0.7 | 0.055 | 0.239 |
| 34 | Ht Pocket R/L | 500 | 20.83 | 589 | 100% | 12270.83 | 27.05 | 0.0135 | 0.7 | 0.009 | 0.041 |
| 35 | Board Pocket R/L | 600 | 25.00 | 613 | 100% | 15325 | 33.79 | 0.0169 | 0.7 | 0.012 | 0.052 |
| 36 | Garnish Side w/UPR R/L | 760 | 31.67 | 178 | 87% | 4903.9 | 10.81 | 0.0054 | 0.7 | 0.004 | 0.017 |
| 37 | Garnish Trunk | 760 | 31.67 | 276 | 100% | 8740 | 19.27 | 0.0096 | 0.7 | 0.007 | 0.030 |
| 38 | Grill Cooler Inlet R/L | 760 | 31.67 | 616 | 87% | 16970.8 | 37.41 | 0.0187 | 0.7 | 0.013 | 0.057 |
| 39 | Seat Back Side R/L | 880 | 36.67 | 633 | 100% | 23210 | 51.17 | 0.0256 | 0.7 | 0.018 | 0.078 |
| 40 | Seat Back Centers | 880 | 36.67 | 280 | 100% | 10266.67 | 22.63 | 0.0113 | 0.7 | 0.008 | 0.035 |
| 41 | Base Centers R/L | 760 | 31.67 | 708 | 87% | 19505.4 | 43.00 | 0.0215 | 0.7 | 0.015 | 0.066 |
| | | | | | | | | | **Total** | **0.370** | **1.62** |

Note: Parts per day for Nos. 1 - 33 are increasing to 450 and this capacity is used in the potential emission calaculations

Maximum capacity of the nine (9) molding machines is 1,500 parts per day.

**Appendix A: Emissions Calculations**
**VOC and Particulate**
**From Surface Coating Operations**

**Company Name:** Heartland Automotive, Inc.
**Address City IN Zip:** 300 South Warren Drive, Greencastle, Indiana 46135
**MSOP:** 133-10520
**Plt ID:** 133-00027
**Reviewer:** Mark L. Kramer
**Date:** January 4, 1999

| Material | Density (lbs/gal) | Weight % Volatile (H20 & Organics) | Weight % Water | Weight % Organics | Volume % Water | Volume % Non-Volatiles (solids) | Gal of Mat. (gal/unit) | Maximum (units/hour) | Pounds VOC per gallon of coating less water | Pounds VOC per gallon of coating | Potential VOC (pounds per hour) | Potential VOC (pounds per day) | Potential VOC (tons per year) | Particulate Potential (tons/yr) | lbs VOC/gal solids | Transfer Efficiency | Product Coated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PP-3/#302 | 8.34 | 72.50% | 0.0% | 72.5% | 0.0% | 27.50% | 0.00960 | 62.500 | 6.05 | 6.05 | 3.63 | 87.07 | 15.89 | 3.01 | 21.99 | 50% | Plastic Front Door Panels |
| Planet/Planet Thinner | | | | | | | | | | | | | | | | | |
| PP-3/#302 | 8.34 | 72.50% | 0.0% | 72.5% | 0.0% | 27.50% | 0.00750 | 62.500 | 6.05 | 6.05 | 2.83 | 68.02 | 12.41 | 2.35 | 21.99 | 50% | Plastic Rear Door Panels |
| Planet/Planet Thinner | | | | | | | | | | | | | | | | | |
| 89251/176300 | 7.83 | 89.30% | 0.0% | 89.3% | 0.0% | 10.70% | 0.00310 | 62.500 | 6.99 | 6.99 | 1.35 | 32.51 | 5.93 | 0.36 | 65.35 | 50% | Plastic Visors |
| Morton/Ulrich | | | | | | | | | | | | | | | | | |
| 96161/176300 | 7.95 | 89.30% | 0.0% | 89.3% | 0.0% | 10.70% | 0.00005 | 62.500 | 7.10 | 7.10 | 0.02 | 0.53 | 0.097 | 0.01 | 66.35 | 50% | Plastic Defroster Grills |
| Morton/Ulrich | | | | | | | | | | | | | | | | | |
| 1501/T-214 | 7.93 | 85.70% | 0.0% | 85.7% | 0.0% | 14.30% | 0.00330 | 62.500 | 6.80 | 6.80 | 1.40 | 33.64 | 6.14 | 0.51 | 47.52 | 50% | Plastic B Pillars |
| Primer/Primac Thinner | | | | | | | | | | | | | | | | | |
| 4000/PB/T-301 | 8.34 | 78.00% | 0.0% | 78.0% | 0.0% | 22.00% | 0.00160 | 62.500 | 6.51 | 6.51 | 0.65 | 15.61 | 2.85 | 0.40 | 29.57 | 50% | Plastic B Pillars |
| Primac/Primac Hardner | | | | | | | | | | | | | | | | | |
| Primer Thinner | | | | | | | | | | | | | | | | | |
| 4000/PB/T-301 | 8.34 | 78.00% | 0.0% | 78.0% | 0.0% | 22.00% | 0.00160 | 62.500 | 6.51 | 6.51 | 0.65 | 15.61 | 2.85 | 0.40 | 29.57 | 50% | Plastic B Pillars |
| Primac/Primac Hardner | | | | | | | | | | | | | | | | | |
| Primer Thinner | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| **State Potential Emissions** | | **Add worst case coating to all solvents** | | | | | | | | | **10.54** | **253.00** | **46.2** | **7.05** | | | |
| | | | | | | | | | VOC | PM | | | | | | | |
| METHODOLOGY | | | | **After Controls** | | | | Control Eff. | 0.00% | 80.00% | **10.54** | **253.00** | **46.2** | **1.41** | | | |

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lbs/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

**Appendix A: Emission Calculations**
**HAP Emission Calculations**



**Company Name:** **Heartland Automotive, Inc.**
**Address City IN Zip:** **300 South Warren Drive, Greencastle, Indiana 46135**
**MSOP:** **133-10520**
**Plt ID:** **133-00027**
**Reviewer:** **Mark L. Kramer**
**Date:** **January 4, 1999**

| Material | Density (lbs/gal) | Gallons of Material (gal/unit) | Maximum (unit/hour) | Weight % Xylene | Weight % Toluene | Weight % MIBK | Weight % MEK | Weight % Ethylene Glycol | Weight % Naptha | | Xylene Emissions (tons/yr) | Toluene Emissions (tons/yr) | MIBK (tons/yr) | MEK Emissions (tons/yr) | Ethylene Glycol Emissions (tons/yr) | Naptha Emissions (tons/yr) | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PP-3/#302 | 8.34 | 0.00960 | 62.500 | 47.00% | 17.00% | 3.00% | 0.00% | 0.00% | 0.00% | | 10.3 | 3.73 | 0.658 | 0.00 | 0.00 | 0.00 | |
| Planet/Planet Thinner | | | | | | | | | | | | | | | | | |
| PP-3/#302 | 8.34 | 0.00750 | 62.500 | 47.00% | 17.00% | 3.00% | 0.00% | 0.00% | 0.00% | | 8.05 | 2.91 | 0.514 | 0.00 | 0.00 | 0.00 | |
| Planet/Planet Thinner | | | | | | | | | | | | | | | | | |
| 89251/176300 | 7.83 | 0.00310 | 62.500 | 4.00% | 0.00% | 0.00% | 27.00% | 7.00% | 7.00% | | 0.27 | 0.00 | 0.00 | 1.79 | 0.465 | 0.465 | |
| Morton/Ulrich | | | | | | | | | | | | | | | | | |
| 96161/176300 | 7.95 | 0.00005 | 62.500 | 4.00% | 20.00% | 0.00% | 27.00% | 7.00% | 7.00% | | 0.00 | 0.02 | 0.00 | 0.029 | 0.008 | 0.008 | |
| Morton/Ulrich | | | | | | | | | | | | | | | | | |
| 1501/T-214 | 7.93 | 0.00330 | 62.500 | 0.00% | 69.00% | 0.00% | 11.00% | 0.00% | 0.00% | | 0.00 | 4.94 | 0.00 | 0.788 | 0.00 | 0.00 | |
| Primer/Primac Thinner | | | | | | | | | | | | | | | | | |
| 4000/PB/T-301 | 8.34 | 0.00160 | 62.500 | 33.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | | 1.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Primac/Primac Hardner | | | | | | | | | | | | | | | | | |
| Primer Thinner | | | | | | | | | | | | | | | | | |
| 4000/PB/T-301 | 8.34 | 0.00160 | 62.500 | 15.00% | 18.00% | 0.00% | 0.00% | 0.00% | 0.00% | | 0.548 | 0.658 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Primac/Primac Hardner | | | | | | | | | | | | | | | | | |
| Primer Thinner | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

Total State Potential Emissions

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Total** | **20.4** | **12.3** | **1.17** | **2.61** | **0.473** | **0.473** | |
| **Limited Total (24.0/46.2)** | **10.6** | **6.37** | **0.608** | **1.36** | **0.246** | **0.246** | |
| | | | | | | | |

| | | |
|---|---|---|
| **Total HAPs** | **37.4** | **tons/year** |
| **Limited Total HAPs** | **19.4** | **tons/year** |

**METHODOLOGY**

HAPS emission rate (tons/yr) = Density (lbs/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

**Appendix A: Emissions Calculations**
**Natural Gas Combustion Only**
**MM BTU/HR <100**
**Small Industrial Boiler**

**Company Name:** **Heartland Automotive, Inc.**
**Address City IN Zip:** **300 South Warren Drive, Greencastle, Indiana 46135**
**MSOP:** **133-10520**
**Plt ID:** **133-00027**
**Reviewer:** **Mark L. Kramer**
**Date:** **January 4, 1999**

Natural Gas Drying Oven

| Heat Input Capacity MMBtu/hr | Potential Throughput MMCF/yr |
|---|---|
| 1.0 | 8.8 |

Pollutant

| | PM | PM10 | SO2 | NOx | VOC | CO |
|---|---|---|---|---|---|---|
| Emission Factor in lb/MMCF | 7.6 | 7.6 | 0.6 | 100.0 *see below | 5.5 | 84.0 |
| Potential Emission in tons/yr | 0.0333 | 0.0333 | 0.0026 | 0.4380 | 0.0241 | 0.3679 |

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
PM emission factors are condensable and filterable.

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations**
**Natural Gas Combustion Only**
**MM BTU/HR <100**
**Small Industrial Boiler**
**HAPs Emissions**

**Company Name:** **Heartland Automotive, Inc.**
**Address City IN Zip:** **300 South Warren Drive, Greencastle, Indiana 46135**
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HAPs - Organics

| | Benzene | Dichlorobenzene | Formaldehyde | Hexane | Toluene |
|---|---|---|---|---|---|
| Emission Factor in lb/MMcf | 2.1E-03 | 1.2E-03 | 7.5E-02 | 1.8E+00 | 3.4E-03 |
| Potential Emission in tons/yr | 0.000009 | 0.000005 | 0.000329 | 0.007884 | 0.000015 |

HAPs - Metals

| | Lead | Cadmium | Chromium | Manganese | Nickel |
|---|---|---|---|---|---|
| Emission Factor in lb/MMcf | 5.0E-04 | 1.1E-03 | 1.4E-03 | 3.8E-04 | 2.1E-03 |
| Potential Emission in tons/yr | 0.0000022 | 0.0000048 | 0.0000061 | 0.0000017 | 0.0000092 |

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Appendix A: Emissions Calculations**
**VOC and Particulate**
**From Surface Coating Operations**

**Company Name:** Heartland Automotive, Inc.
**Address City IN Zip:** 300 South Warren Drive, Greencastle, Indiana 46135
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**Reviewer:** Mark L. Kramer
**Date:** January 4, 1999

| Material | Density (lbs/gal) | Weight % Volatile (H20 & Organics) | Weight % Water | Weight % Organics | Volume % Water | Volume % Non-Volatiles (solids) | Gal of Mat. (gal/unit) | Maximum (units/hour) | Pounds VOC per gallon of coating less water | Pounds VOC per gallon of coating | Potential VOC (pounds per hour) | Potential VOC (pounds per day) | Potential VOC (tons per year) | Particulate Potential (tons/yr) | lbs VOC/gal solids | Transfer Efficiency | Product Coated |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **SB-1 & SB-2** | | | | | | | | | | | | | | | | | |
| PP-3/#302 | 8.34 | 72.50% | 0.0% | 72.5% | 0.0% | 27.50% | 0.00960 | 62.500 | 6.05 | 6.05 | 3.63 | 87.1 | 15.9 | 3.01 | 22.0 | 50% | Plastic Front Door Panels |
| Planet/Planet Thinner | | | | | | | | | | | | | | | | | |
| PP-3/#302 | 8.34 | 72.50% | 0.0% | 72.5% | 0.0% | 27.50% | 0.00750 | 62.500 | 6.05 | 6.05 | 2.83 | 68.0 | 12.4 | 2.35 | 22.0 | 50% | Plastic Rear Door Panels |
| Planet/Planet Thinner | | | | | | | | | | | | | | | | | |
| 89251/176300 | 7.83 | 89.30% | 0.0% | 89.3% | 0.0% | 10.70% | 0.00310 | 62.500 | 6.99 | 6.99 | 1.35 | 32.5 | 5.93 | 0.355 | 65.3 | 50% | Plastic Visors |
| Morton/Ulrich | | | | | | | | | | | | | | | | | |
| 96161/176300 | 7.95 | 89.30% | 0.0% | 89.3% | 0.0% | 10.70% | 0.00005 | 62.500 | 7.10 | 7.10 | 0.022 | 0.532 | 0.097 | 0.006 | 66.3 | 50% | Plastic Defroster Grills |
| Morton/Ulrich | | | | | | | | | | | | | | | | | |
| 1501/T-214 | 7.93 | 85.70% | 0.0% | 85.7% | 0.0% | 14.30% | 0.00330 | 62.500 | 6.80 | 6.80 | 1.40 | 33.6 | 6.14 | 0.512 | 47.5 | 50% | Plastic B Pillars |
| Primer/Primac Thinner | | | | | | | | | | | | | | | | | |
| 4000/PB/T-301 | 8.34 | 78.00% | 0.0% | 78.0% | 0.0% | 22.00% | 0.00160 | 62.500 | 6.51 | 6.51 | 0.651 | 15.6 | 2.85 | 0.402 | 29.6 | 50% | Plastic B Pillars |
| Primac/Primac Hardner | | | | | | | | | | | | | | | | | |
| Primer Thinner | | | | | | | | | | | | | | | | | |
| 4000/PB/T-301 | 8.34 | 78.00% | 0.0% | 78.0% | 0.0% | 22.00% | 0.00160 | 62.500 | 6.51 | 6.51 | 0.651 | 15.6 | 2.85 | 0.402 | 29.6 | 50% | Plastic B Pillars |
| Primac/Primac Hardner | | | | | | | | | | | | | | | | | |
| Primer Thinner | | | | | | | | | | **Subtotal SB-1 & SB-2** | **10.5** | **253** | **46.2** | **7.05** | **282** | | |
| | | | | | | | | | | | | | | | | | |
| **Door Assembly Line** | | | | | | | | | | | | | | | | | |
| Con Bond 330 | 9.09 | 52.00% | 48.0% | 4.0% | 43.3% | 56.70% | 0.01150 | 112.500 | 0.641 | 0.364 | 0.470 | 11.3 | 2.06 | 12.4 | 0.641 | 50% | Plastic Door Parts |
| | | | | | | | | | | | | | | | | | |
| **Touchup Adhesive SB** | 8.34 | 92.00% | 0.0% | 92.0% | 0.0% | 8.00% | 0.01020 | 13.890 | 7.67 | 7.67 | 1.09 | 26.1 | 4.76 | 0.207 | 95.9 | 50% | Plastic Door Parts |
| Chem-Pak Flaw Repair | | | | | | | | | | | | | | | | | |
| **State Potential Emissions** | | | **Add worst case coating to all solvents** | | | | | | | **Total** | **12.1** | **290** | **53.0** | **19.6** | | | |

| | | VOC | PM | | | | |
|---|---|---|---|---|---|---|---|
| METHODOLOGY | **After Controls** | Control Eff. | **0.00%** | **80.00%** | **12.1** | **290** | **53.0** | **14.0** |

**SB-1 & SB-2**

Pounds of VOC per Gallon Coating less Water = (Density (lbs/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lbs/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lbs/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

**SB-1 & SB-2 Limited to 24.0 TPY VOC and PM Adjusted by Ratio of 24.0/46.2**

| **Limited** | **Total** | **30.8** | **13.3** |
|---|---|---|---|
| | | **VOC** | **PM** |

**Slush Mold/Powder Slush Operation**

**Potential PM and HAPs Emissions**

500 Parts/2 shifts of 8 hrs each = 31.25 parts per hour
Since the entire process is sealed, a conservative estimate is that 0.01% is emitted to the atmosphere

| Material | Usage (lbs/part) | Parts/Hour | Percent Emitted (%) | PM Potential Emissions (lbs/hr) | Potential Emissions (tons/yr) |
|---|---|---|---|---|---|
| PVC | 3.3 | 31.25 | 0.01% | 0.01031 | 0.04517 |

HAPs Vinyl Chloride may appear at a level of 1 ppm of the PVC

| | Usage (lbs/part) | Parts/Hour | Percent Emitted (%) | Potential Emissions (lbs/hr) | Potential Emissions (tons/yr) |
|---|---|---|---|---|---|
| Vinyl Chloride | 3.3 | 31.25 | 0.0001% | 0.0001 | 0.00045 |

**Thermoforming Line** **Potential VOC Emissions** No cutting or grinding, therefore no PM emissions

| Material | Density (lbs/ft3) | Parts Per Hour | Volume Per Part (ft3/part) | Emission Factor (lbs/ton) | % VOC | VOC Emissions (lbs/hr) | VOC Emissions (tons/yr) | Type of Part |
|---|---|---|---|---|---|---|---|---|
| Woodstock 50/50 | 68.64 | 25.00 | 0.0782 | 0.7 | 48.0% | 0.023 | 0.099 | Apron |
| Woodstock 50/50 | 68.64 | 12.50 | 0.0694 | 0.7 | 48.0% | 0.010 | 0.044 | Rear Gate |
| Woodstock 50/50 | 68.64 | 8.10 | 0.0874 | 0.7 | 48.0% | 0.008 | 0.036 | Lid |
| | | | | | **Total** | **0.041** | **0.178** | |

**Appendix A: Emission Calculations**
**HAP Emission Calculations**



**Company Name:** **Heartland Automotive, Inc.**
**Address City IN Zip:** **300 South Warren Drive, Greencastle, Indiana 46135**
**MSOP:** **133-10520**
**Plt ID:** **133-00027**
**Reviewer:** **Mark L. Kramer**
**Date:** **January 4, 1999**

| Material | Density (lbs/gal) | Gallons of Material (gal/unit) | Maximum (unit/hour) | Weight % Xylene | Weight % Toluene | Weight % MIBK | Weight % MEK | Weight % Ethylene Glycol | Weight % Naptha | Weight % Chloroprene | Xylene Emissions (tons/yr) | Toluene Emissions (tons/yr) | MIBK (tons/yr) | MEK Emissions (tons/yr) | Ethylene Glycol Emissions (tons/yr) | Naptha Emissions (tons/yr) | Chloroprene Emissions (tons/yr) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **New Booths** | | | | | | | | | | | | | | | | | |
| **SB-1 & SB-2** | | | | | | | | | | | | | | | | | |
| PP-3/#302 | 8.34 | 0.00960 | 62.500 | 47.00% | 17.00% | 3.00% | 0.00% | 0.00% | 0.00% | 0.00% | 10.3 | 3.73 | 0.658 | 0.00 | 0.00 | 0.00 | 0.00 |
| Planet/Planet Thinner | | | | | | | | | | | | | | | | | |
| PP-3/#302 | 8.34 | 0.00750 | 62.500 | 47.00% | 17.00% | 3.00% | 0.00% | 0.00% | 0.00% | 0.00% | 8.05 | 2.91 | 0.514 | 0.00 | 0.00 | 0.00 | 0.00 |
| Planet/Planet Thinner | | | | | | | | | | | | | | | | | |
| 89251/176300 | 7.83 | 0.00310 | 62.500 | 4.00% | 0.00% | 0.00% | 27.00% | 7.00% | 7.00% | 0.00% | 0.27 | 0.00 | 0.00 | 1.79 | 0.465 | 0.465 | 0.00 |
| Morton/Ulrich | | | | | | | | | | | | | | | | | |
| 96161/176300 | 7.95 | 0.00005 | 62.500 | 4.00% | 20.00% | 0.00% | 27.00% | 7.00% | 7.00% | 0.00% | 0.00 | 0.02 | 0.00 | 0.029 | 0.008 | 0.008 | 0.00 |
| Morton/Ulrich | | | | | | | | | | | | | | | | | |
| 1501/T-214 | 7.93 | 0.00330 | 62.500 | 0.00% | 69.00% | 0.00% | 11.00% | 0.00% | 0.00% | 0.00% | 0.00 | 4.94 | 0.00 | 0.788 | 0.00 | 0.00 | 0.00 |
| Primer/Primac Thinner | | | | | | | | | | | | | | | | | |
| 4000/PB/T-301 | 8.34 | 0.00160 | 62.500 | 33.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 1.21 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Primac/Primac Hardner | | | | | | | | | | | | | | | | | |
| Primer Thinner | | | | | | | | | | | | | | | | | |
| 4000/PB/T-301 | 8.34 | 0.00160 | 62.500 | 15.00% | 18.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.548 | 0.658 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Primac/Primac Hardner | | | | | | | | | | | | | | | | | |
| Primer Thinner | | | | | | | | | | | | | | | | | |
| | | | | | | | | | **SB-1 &SB-2 Sub-total** | | **20.4** | **12.3** | **1.17** | **2.61** | **0.473** | **0.473** | **0.00** |
| | | | | | | | | | | | | | | | | | |
| **Door Assembly Line** | | | | | | | | | | | | | | | | | |
| Con Bond 330 | 9.09 | 0.011500 | 112.50 | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 3.70% | 0.30% | 0.000 | 0.000 | 0.00 | 0.00 | 0.00 | 1.91 | 0.155 |
| | | | | | | | | | | | | | | | | | |
| **Touchup Adhesive** | | | | | | | | | | | | | | | | | |
| Chem-Pak Flaw Repair | 8.34 | 0.010200 | 13.80 | 15.00% | 10.00% | 0.00% | 0.00% | 0.00% | 30.00% | 0.00% | 0.771 | 0.514 | 0.00 | 0.00 | 0.00 | 1.54 | 0.00 |
| | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Total State Potential Emissions | **Unlimited Total** | **21.1** | **12.8** | **1.17** | **2.61** | **0.473** | **3.92** | **0.155** |
| **HAPs limited by ratio of 24.0/46.2 SB-1 and SB- 2, VOC limited to 24.0 TPY** | **Limited Total (24.0/46.2)** | **11.4** | **6.88** | **0.608** | **1.36** | **0.246** | **3.69** | **0.155** |
| **SB-1 & SB-2 VOC Limited & MACT Single HAP and Combined HAPs Limited to 9.9 and 24.0 TPY, plus unlimited remainder** | | **10.7** | **6.88** | **0.608** | **1.36** | **0.246** | **3.69** | **0.155** |

**METHODOLOGY**

| | | |
|---|---|---|
| **Unlimited Total HAPs** | **42.2** | **tons/year** |
| **Limited Total HAPs with VOC Ratio** | **24.3** | **tons/year** |
| **Limited Total HAPs w/VOC Ratio & MACT Limits** | **23.6** | **tons/year** |

HAPS emission rate (tons/yr) = Density (lbs/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

**Appendix A: Emissions Calculations**
**Natural Gas Combustion Only**
**MM BTU/HR <100**
**Small Industrial Boiler**

**Company Name:** **Heartland Automotive, Inc.**
**Address City IN Zip:** **300 South Warren Drive, Greencastle, Indiana 46135**
**MSOP:** **133-10520**
**Plt ID:** **133-00027**
**Reviewer:** **Mark L. Kramer**
**Date:** **January 4, 1999**

1 oven (D-1) rated at 1.0 mmbtu/hr, 1 boiler (B-1) rated at 1.36 mmbtu/hr, 2 air makeup units rated at 2.4 mmbtu/hr & 2 burners rated at 1.19 mmbtu/hr each

| Heat Input Capacity MMBtu/hr | Potential Throughput MMCF/yr |
|---|---|
| 9.54 | 83.6 |

| | Pollutant | | | | | |
|---|---|---|---|---|---|---|
| | PM | PM10 | SO2 | NOx | VOC | CO |
| Emission Factor in lb/MMCF | 7.6 | 7.6 | 0.6 | 100.0 *see below | 5.5 | 84.0 |
| Potential Emission in tons/yr | 0.3176 | 0.3176 | 0.0251 | 4.1785 | 0.2298 | 3.5100 |

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
PM emission factors are condensable and filterable.

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations**
**Natural Gas Combustion Only**
**MM BTU/HR <100**
**Small Industrial Boiler**
**HAPs Emissions**

**Company Name:** **Heartland Automotive, Inc.**
**Address City IN Zip:** **300 South Warren Drive, Greencastle, Indiana 46135**
**MSOP:** **133-10520**
**Plt ID:** **133-00027**
**Reviewer:** **Mark L. Kramer**
**Date:** **January 4, 1999**

HAPs - Organics

| | Benzene | Dichlorobenzene | Formaldehyde | Hexane | Toluene |
|---|---|---|---|---|---|
| Emission Factor in lb/MMcf | 2.1E-03 | 1.2E-03 | 7.5E-02 | 1.8E+00 | 3.4E-03 |
| Potential Emission in tons/yr | 0.000088 | 0.000050 | 0.003134 | 0.075213 | 0.000142 |

HAPs - Metals

| | Lead | Cadmium | Chromium | Manganese | Nickel |
|---|---|---|---|---|---|
| Emission Factor in lb/MMcf | 5.0E-04 | 1.1E-03 | 1.4E-03 | 3.8E-04 | 2.1E-03 |
| Potential Emission in tons/yr | 0.0000209 | 0.0000460 | 0.0000585 | 0.0000159 | 0.0000877 |

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.